Remarks

Applicant has amended the claims for greater clarity of the subject matter sought to be patented.

Applicant respectfully disagrees with the Examiner's continuance of rejection of the claims of the application.

The Examiner's Final Action references Critchlow et al. '555, and Figure 1 and port 142 in particular, and describes these as showing a port that preserves the isolation and avoids channeling noise. However, Applicant notes that the line 140 shown passing through port 142 is fiber optic, i.e., it is a signal line only. It is not "configured to couple electrical power through" the port 142 "between a power supply outside of the shielded room and the power head for actuating the power head", as claimed.

Applicant submits that Critchlow et al. uses fiber optics through port 142, because they do not form a galvanic connection that passes from the outside of the room to the inside of the room, which could serve as a conduit for noise to pass to and from the shielded magnet room. Critchlow states that the fiber optic cable "provides a communicative link with little or no incoming RF interference" (paragraph 38, lines 6-7). Critchlow also suggests the use of a wireless RF link that operates outside of the frequency of the scanner. In either

case, there is no provision to transmit electrical power from outside to inside of the shielded room. Furthermore, nowhere is there disclosure of laying conductors that carry electrical power for powering the injector head, across the room and out to a power supply outside the room, for good reason: doing so involves creating a high conductivity, high current path from inside to outside of the room, creating in effect an antenna that presents a substantial risk that noise will be introduced from sources outside the shielded room. Critchlow's use of fiber optics clearly is intended to avoid passing conductors into and out of the room, and clearly teaches away from doing so to provide a power connection from outside of the room to inside of the room.

Critchlow's use of fiber optics means that power must be supplied from inside the room, which requires the use of batteries within the room to power the injector, as is clearly shown at 135 in Critchlow Fig. 1. The use of a battery to power the injector, also clearly teaches away from coupling power from outside the room to the injector head, as claimed herein.

The Examiner's rejection relies upon the asserted obviousness of combining Kormos et al. with Critchlow, to modify Critchlow to use remote power. But such a modification is directly in conflict with Critchlow, as Critchlow clearly teaches using battery power, so that there are only non-conductive

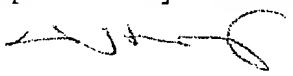
communication links to outside of the shielded room, and no conductive links carrying power. This teaching of Critchlow is wholly inconsistent with any suggestion to connect electrical power from outside the room. Applicant thus submits that the Examiner's rejection asserting that making such connections would be obvious, is improper and should be withdrawn.

Applicant further notes that dependent claim 2 recites a power connection that carries "data signals from [the] control panel to [the] power head for controlling [the] power head", and that claims 3-5 each recite a cable "having conductors adapted for electrical power transmission and further adapted for carrying data signals". Thus, these claims clearly recite a connection that provides both power and data/control signals. This is not disclosed by either Critchlow or Kormos, as Applicant noted in Applicant's prior response. The Examiner's comment in the Final Action that "the signal connection as set forth in the remarks is not claimed", apparently overlooked these recitations of claims 2 and 3-5 which clearly call for power connection that also carries data, or a cable with conductors that carry power and data signals. Applicant thus submits that claims 2 and 3-5 are allowable for their recitation of the coupling of both power and data/control signals in one connection.

Applicant therefore requests early transmission of a Notice of Allowability.

If any petition for extension of time is necessary to accompany this communication, please consider this paper a petition for such an extension of time, and apply the appropriate extension of time fee to Deposit Account 23-3000. If any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,



Thomas W. Humphrey
Reg. No. 34,353

Wood, Herron & Evans, L.L.P.
2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202-2917

Voice: (513) 241-2324
Facsimile: (513) 241-6234